

### **REMARKS**

This responds to the Office Action dated January 15, 2010.

Claims 25-33 and 37-45 are amended, claims 34-35 and 46-47 are canceled, and no claims are added; as a result, claims 25-33, 36-45 are now pending in this application. Support for the present amendments can be found throughout the Application as originally filed, such as, e.g., at FIG. 3; p.6, ll.17-28; and p.7, ll.1-25.

#### **Formal Request for Telephonic Interview**

If the present claim amendments do not result in allowance of all claims, then Applicant formally requests a telephonic interview with the Examiner and Applicant's representatives, Suneel Arora and Timothy Christman, to help expedite examination.

#### **Interview Summary**

Applicant thanks Examiner Scott Getzow for the courtesy of a telephone interview on May 12, 2010 with Applicant's representative Timothy J. Christman. An amendment to claim 25 was discussed, similar to the present amendment, along with the Lu reference. While no agreement was reached, Examiner Getzow indicated that the amendment and response would be given due consideration when filed. Accordingly, Applicant respectfully requests withdrawal of the present rejections for the reasons discussed below.

#### **The Rejection of Claims Under § 102**

Claims 25-33 and 36 were rejected under 35 U.S.C. 102(b) for anticipation by Lu (U.S. Patent No. 5,591,214). Applicant respectfully traverses. Applicant submits that the present amendments overcome this rejection. Particularly, the subject matter of claims 34-35 has been incorporated into independent claim 25. Lu apparently fails to disclose, teach, or even suggest the subject matter recited in claim 25 as presently amended, including an implantable monitoring circuit:

- configured to *inhibit* sensing of atrial or ventricular electrical signals during an *adjustable blanking interval*;

- configured to receive information indicative of atrial or ventricular electrical signals during a *noise window interval derived from a difference between a preset refractory period and the adjustable blanking interval*; and
- configured to *ignore the information received during the noise window interval, for at least the purpose of directing the implantable therapy circuit to provide pacing therapy.*

The Office Action asserts “the terms ‘disable’ and ‘discard’ are considered to be broad enough terms to describe the functioning of the Lu device when in blanks the cross channel signals.” (Office Action at p.2, sec. 1.) Applicant respectfully disagrees. However, for clarification, Applicant has amended claim 25 to clarify that sensing of atrial or ventricular events can be “inhibited” during the *adjustable blanking interval*, but that sensing can still occur during the *noise window interval*. Applicant has also amended claim 25 to clarify that when sensing is not inhibited, the *implantable monitoring circuit* can still *ignore* information received about atrial or ventricular electrical signals, such as during the *noise window interval, for at least the purpose of directing the implantable therapy circuit to provide pacing therapy*. Thus, the implantable monitoring circuit can still use received information sensed during the *noise window interval* for other purposes since such sensing is not altogether *inhibited*.

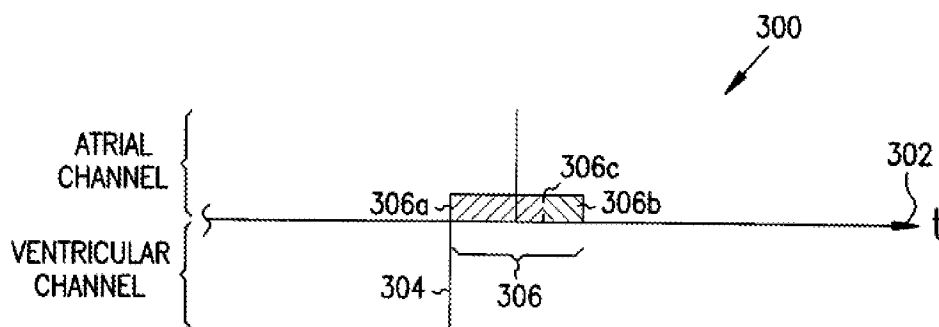
Thus, Applicant respectfully submits that no *prima facie* case of anticipation exists with respect to claim 25 as presently amended, or to claims 26-33 and 36 via their dependence on claim 25, since the cited portions of Lu apparently fail to disclose the subject matter of claim 25. Accordingly, Applicant respectfully requests withdrawal of this rejection of claims 25-33, and 36.

#### *The Rejection of Claims Under § 103*

Claims 34, 35, and 37-47 were rejected under 35 U.S.C. 103(a) over Lu, and further in view of Wickham (U.S. Patent No. 5,891,171). Applicant respectfully traverses. Claims 34-35, and 46-47 have been canceled, and their subject matter has been incorporated into independent claims 25 and 37, respectively. Similar to the remarks presented above with respect to the § 102 rejection, Applicant respectfully submits that no *prima facie* case of obviousness has been shown since Lu, Wickham, and/or the Office Action’s reasoning do not appear to disclose, teach, or even suggest an implantable monitoring circuit (1) configured to *inhibit* sensing of atrial or ventricular electrical signals during an *adjustable blanking interval*; (2) configured to receive

information indicative of atrial or ventricular electrical signals during a *noise window interval* derived from a difference between a preset refractory period and the adjustable blanking interval; and (3) configured to ignore the information received during the noise window interval, for at least the purpose of directing the implantable therapy circuit to provide pacing therapy, as similarly recited or incorporated in claims 25 and 37, and their respective dependent claims.

The Office Action asserts that “to use a noise window is considered to be obvious in light of the skill of [an] ordinary artisan to prevent noise from being sensed as a legitimate signal.” (Office Action at pp.2-3, sec. 2.) The Office Action further asserts that both Lu and Wickham separately disclose “using a noise window.” Applicant respectfully disagrees. The present amendments clarify that the phrase “noise window” refers to an *interval*, rather than to an *amplitude* (or a range of amplitudes). Consider FIG. 3 of the Application, shown below for convenience:



**FIG. 3**

(Application at FIG. 3.)

In this illustrative example, a ventricular event (e.g., a pacing pulse or an intrinsic heart contraction) (304) triggers, in the atrial channel, an adjustable blanking portion (306a) of a preset refractory period (306), with the remaining portion of the preset refractory period (306) including a noise window interval (306b), all of which are shown along a time axis (302). Applicant respectfully submits that the cited portions of Lu, Wickham and/or the reasoning of the Office Action entirely fail to provide a noise window interval such as shown above in FIG. 3, and as recited or incorporated in claims 25 and 37, and their respective dependent claims. Instead, for example, the cited portion of Lu discloses a “sensing circuit ... connected to an amplifier 52 ... the output of [the] amplifier 52 is fed into a comparator 54 [which] compares the amplified

signal ... with a programmable sensing threshold.” (Lu at col.5, ll.41-45.) In Lu, the “threshold (ATH) may be detected at 50% or less than the programmed sensitivity stored in memory 56.

The advantage of this approach is that it can automatically determine a high signal to noise ratio of about 2:1.” (Lu at col.5, ll.56-60.) Thus, Lu’s discussion of “noise” apparently relates to a signal-to-noise ratio provided by selection of a particular *amplitude* for a sensing threshold.

Wickham also apparently fails to disclose, teach, or even suggest a noise window interval.

Consider FIG. 3 of Wickham:

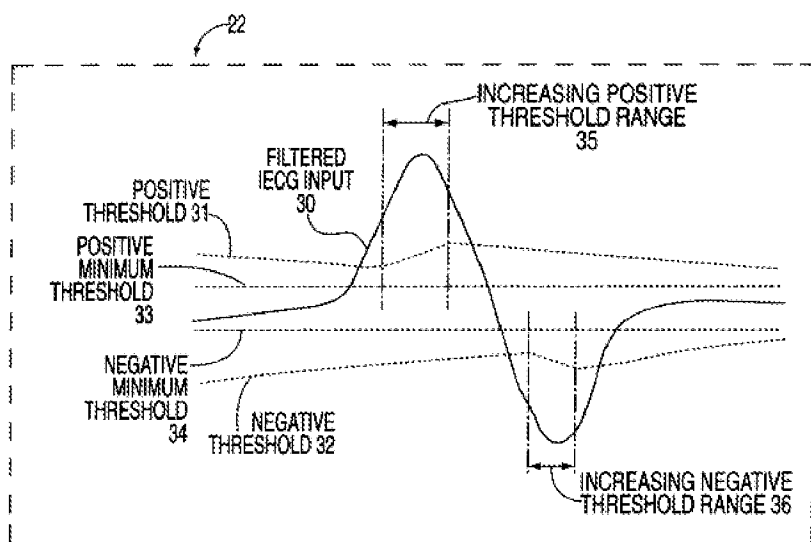


FIG. 3  
PRIOR ART

(Wickham at FIG. 3.)

Wickham apparently discloses an amplitude window comparator providing a positive minimum threshold (33) and a negative minimum threshold (34), such as to suppress spurious threshold crossings associated with noise. Such *amplitude* thresholds are entirely different from the *noise window interval* of the present amendment.

Accordingly, since no *prima facie* case of obviousness has been shown, Applicant respectfully requests withdrawal of this rejection of claims 37-47. For brevity, Applicants defer but reserve the right to later present remarks concerning the dependent claims, which Applicants respectfully submit recite patentable subject matter beyond that recited in their respective base claims.

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Reservation of Rights

In the interest of clarity and brevity, Applicant may not have equally addressed every assertion made in the Office Action, however, this does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

**CONCLUSION**

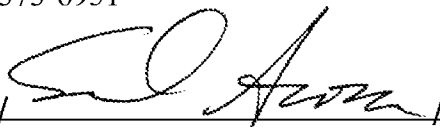
Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone the undersigned at (612) 373-6951 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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Date May 17, 2010

By   
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 17th day of May, 2010.

Nellie Nuhring  
Name

  
Signature